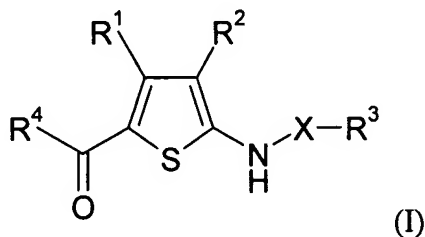


CLAIM AMENDMENTS

1-80. (canceled)

81. (new) A method for the prophylaxis or treatment of a disease state or condition mediated by a p38 MAP kinase, which method comprises administering to a subject in need thereof a therapeutically effective amount of a compound of the formula (I):



or a salt, solvate or N-oxide thereof, wherein:

R¹ and R² are the same or different and each is selected from hydrogen, C₁₋₄ hydrocarbyl, halogen and cyano;

X is selected from C=O, C=S, C(=O)NH, C(=S)NH, C(=O)O, C(=O)S, C(=S)O and C(=S)S;

R³ is selected from aryl and heteroaryl groups each having from 5 to 12 ring members, the aryl and heteroaryl groups each being unsubstituted or substituted by one or more substituent groups R⁷;

R⁷ is selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group R^a-R^b wherein R^a is a bond, O, CO, X¹C(X²), C(X²)X¹, X¹C(X²)X¹, S, SO, SO₂, NR^c, SO₂NR^c or NR^cSO₂; and R^b is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 7 ring members, and a C₁₋₈ hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, amino, mono- or di-C₁₋₄ hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of

the C₁₋₈ hydrocarbyl group may optionally be replaced by O, S, SO, SO₂, NR^c, X¹C(X²), C(X²)X¹ or X¹C(X²)X¹;

X¹ is O, S or NR^c and X² is =O, =S or =NR^c;

R^c is hydrogen or C₁₋₄ hydrocarbyl;

R⁴ is a group YR⁵ or a group R⁶;

Y is NH, O or S;

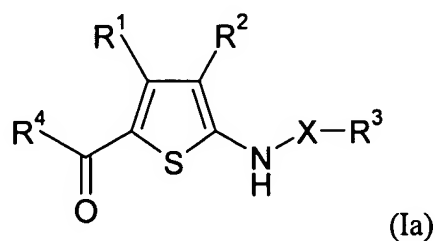
R⁵ is selected from (a) carbocyclic and heterocyclic groups having from 3 to 12 ring members; and (b) C₁₋₈ hydrocarbyl groups optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, amino, mono- or di-C₁₋₄ hydrocarbylamino, and carbocyclic and heterocyclic groups having from 3 to 12 ring members, wherein one or more carbon atoms of the C₁₋₈ hydrocarbyl group may optionally be replaced by O, S, SO, SO₂, NR^c, X¹C(X²), C(X²)X¹ or X¹C(X²)X¹, provided that when Y is O, a carbon atom adjacent to the group Y is not replaced by O; and

R⁶ is a heterocyclic group having from 4 to 12 ring members and containing at least one ring nitrogen atom through which R⁶ is linked to the adjacent carbonyl group;

wherein the carbocyclic and heterocyclic groups of substituents R⁵ and R⁶ are each unsubstituted or substituted by one or more substituent groups R⁷ as hereinbefore defined.

82. A method according to claim 81 wherein the disease state or condition is selected from inflammatory and arthritic diseases and conditions.

83. A compound of the formula (Ia):



or a salt, solvate or N-oxide thereof, wherein:

R^1 and R^2 are the same or different and each is selected from hydrogen, C_{1-4} hydrocarbyl, halogen and cyano;

X is selected from C=O, C=S, C(=O)NH, C(=S)NH, C(=O)O, C(=O)S, C(=S)O and C(=S)S;

R^3 is selected from aryl and heteroaryl groups each having from 5 to 12 ring members, the aryl and heteroaryl groups each being unsubstituted or substituted by one or more substituent groups R^7 ;

R^7 is selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group R^a-R^b wherein R^a is a bond, O, CO, $X^1C(X^2)$, $C(X^2)X^1$, $X^1C(X^2)X^1$, S, SO, SO_2 , NR^c , SO_2NR^c or NR^cSO_2 ; and R^b is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 12 ring members, and a C_{1-8} hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, amino, mono- or di- C_{1-4} hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C_{1-8} hydrocarbyl group may optionally be replaced by O, S, SO, SO_2 , NR^c , $X^1C(X^2)$, $C(X^2)X^1$ or $X^1C(X^2)X^1$;

X^1 is O, S or NR^c and X^2 is =O, =S or = NR^c ;

R^c is hydrogen or C_{1-4} hydrocarbyl;

R^4 is a group YR^5 or a group R^6 ;

Y is NH, O or S;

R^5 is selected from (a) carbocyclic and heterocyclic groups having from 3 to 12 ring members; and (b) C_{1-8} hydrocarbyl groups optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, amino, mono- or di- C_{1-4} hydrocarbylamino, and carbocyclic and heterocyclic groups having from 3 to 12 ring members, wherein one or more carbon atoms of the C_{1-8} hydrocarbyl group may optionally be replaced by O, S, SO, SO_2 , NR^c , $X^1C(X^2)$, $C(X^2)X^1$ or $X^1C(X^2)X^1$, provided that when Y is O, a carbon atom adjacent to the group Y is not replaced by O; and

R^6 is a heterocyclic group having from 4 to 12 ring members and containing at least one

ring nitrogen atom through which R⁶ is linked to the adjacent carbonyl group, provided that R⁶ is other than a bicyclic group comprising a benzene ring fused to a 7-membered heterocyclic ring;

wherein the carbocyclic and heterocyclic groups of substituents R⁵ and R⁶ are each unsubstituted or substituted by one or more substituent groups R⁷ as hereinbefore defined; provided that:

(a) when X is C=O and R³ is a heteroaryl group substituted by the group R^a-R^b where R^a is NR^cC=O, then R^b is other than an optionally further substituted phenyl, pyridyl or pyrimidinyl group having a carbocyclic or heterocyclic group bonded to the *ortho* position thereof either directly or through an intervening linker atom or group of 1 or 2 atoms in length;

(b) when X is C=O, R³ is other than:

(i) an optionally further substituted phenyl, pyridyl or pyrimidinyl group having a carbocyclic or heterocyclic group bonded to the *ortho* position thereof either directly or through an intervening linker atom or group of 1 or 2 atoms in length;

(ii) a phenyl group having an oxy-substituent bonded to the *ortho* position thereof;

(iii) an optionally N-substituted pyrrolidine ring substituted on a carbon atom thereof by a group selected from thiol, substituted thiol, thiocarbonate and groups containing a β -lactam ring;

(c) when X is C=O and R³ is an unsubstituted phenyl group, or a phenyl group substituted by one or more substituents, none of which are cyclic, then R⁴ is other than alkoxy;

(d) when X is C(=O)NH and R³ is a thiophene group bearing a 5-alkoxycarbonyl group, then R⁴ is other than alkoxy;

(e) when Y is NH or O and R⁵ is a C₂₋₄ alkylene group bearing a terminal amino, monoalkylamino or dialkylamino substituent, wherein the alkyl moieties of the mono- and dialkylamino substituents are themselves unsubstituted or further substituted; then X-R³ is other than an unsubstituted or substituted benzoyl group;

(f) when Y is NH and R⁵ is a C₁₋₃ alkylene group bearing a terminal carboxy or alkoxycarbonyl substituent; then X-R³ is other than a 4-carbamimidoyl-benzoyl group;

(g) when X is C=O, Y is NH and R⁵ is a 3-dimethylaminoprop-1-yl group; then R³ is other than a 5-nitro-2-thiophenyl group; and

(h) when X is C=O, R⁴ is ethoxy, R¹ is methyl and R² is hydrogen or cyano; then R³ is other than an unsubstituted phenyl group.

84. A compound according to claim 83 wherein X is selected from C=O and C(=O)NH.

85. A compound according to claim 84 wherein R³ is a monocyclic aryl or heteroaryl group, which monocyclic aryl or heteroaryl group is unsubstituted or substituted by one or more substituent groups R⁷.

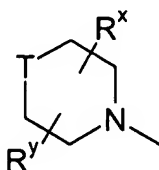
86. A compound according to claim 85 wherein the monocyclic aryl and heteroaryl group is selected from phenyl, pyrazolyl, and thiadiazolyl groups, wherein the phenyl, pyrazolyl, and thiadiazolyl groups are each unsubstituted or substituted by one or more substituent groups R⁷.

87. A compound according to claim 86 wherein the monocyclic aryl group or heteroaryl group R³ contains one or more substituent groups R⁷ selected from halogen, carbocyclic and heterocyclic groups having from 4 to 7 ring members and optionally substituted C₁₋₈ hydrocarbonyl groups.

88. A compound according to claim 87 wherein one of said one or more substituent groups R⁷ is a carbocyclic or heterocyclic group which is linked to the aryl or heteroaryl ring via a carbon nitrogen bond.

89. A compound according to claim 88 in which R⁴ is a group R⁶ wherein R⁶ is a monocyclic group having from 4 to 7 ring members.

90. A compound according to claim 89 wherein the monocyclic group R⁶ is a group:



where T is N-methyl or O; R^x and R^y are the same or different and are selected from hydrogen and methyl; or one of R^x and R^y is selected from hydroxymethyl and ethyl and the other is hydrogen.

91. A compound according to claim 90 wherein T is O and R^x and R^y are both hydrogen.

92. A compound according to claim 91 containing a combination of groups R¹ and R² selected from: (a) R¹ = chlorine and R² = methyl; (b) R¹ = chlorine and R² = hydrogen; (c) R¹ = hydrogen and R² = hydrogen; (d) R¹ = methyl and R² = hydrogen; (e) R¹ = cyano and R² = methyl; and (f) R¹ = methyl and R² = cyano.

93. A compound according to claim 92 wherein the combination of groups R¹ and R² is combination (a).

94. A compound according to claim 92 wherein X is C=O.

95. A compound according to claim 94 wherein R³ is a phenyl group bearing one or two *meta* substituents.

96. A compound according to claim 95 wherein one *meta* position on the phenyl ring is unsubstituted or is substituted by a group selected from fluorine, chlorine, methoxy, trifluoromethoxy, trifluoromethyl, ethyl, methyl and isopropyl; and the other *meta* position is substituted by a group selected from fluorine, chlorine, methoxy, trifluoromethoxy, trifluoromethyl, ethyl, methyl, isopropyl, isobutyl, t-butyl, phenyl, substituted phenyl, and five and six membered monocyclic heterocyclic groups.

97. A compound according to claim 96 wherein both *meta* positions on the phenyl ring are substituted, one substituent being a halogen and the other substituent being a morpholine group.

98. A compound according to claim 92 wherein X is C(=O)NH.

99. A compound according to claim 98 wherein R³ is a pyrazole group substituted by two

substituent groups R⁷.

100. A compound according to claim 99 wherein the two substituent groups R⁷ are located on non-adjacent ring members.

101. A compound according to claim 100 wherein the pyrazole group is substituted by an optionally substituted phenyl group and a C₁₋₄ hydrocarbyl group.

102. A compound according to claim 101 wherein the optionally substituted phenyl group is 4-fluorophenyl.

103. A compound according to claim 101 wherein the C₁₋₄ hydrocarbyl group is *tert*-butyl.

104. A compound according to claim 83 selected from:

3-chloro-5-(3-fluoro-5-morpholin-4-yl-benzoylamino)-4-methyl-thiophene-2-carboxylic acid methyl ester;

N-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

5-{3-[5-*tert*-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-ureido}-3-chloro-4-methyl-thiophene-2-carboxylic acid methyl ester;

1-[5-*tert*-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-3-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-urea;

5-(3-fluoro-5-morpholin-4-yl-benzoylamino)-3-methyl-thiophene-2-carboxylic acid ethyl ester;

3-fluoro-N-[4-methyl-5-(morpholin-4-carbonyl)-thiophen-2-yl]-5-morpholin-4-yl-benzamide;

5-{3-[5-*tert*-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-ureido}-thiophene-2-carboxylic acid ethyl ester;

1-[5-*tert*-butyl-2-(4-fluorophenyl)-2H-pyrazol-3-yl]-3-[5-(morpholine-4-carbonyl)-thiophen-2-yl]-urea;

5-{3-[5-tert-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-ureido}-3-methyl-4-cyano-thiophene-2-carboxylic acid methyl ester;

3-cyano-5-(4-fluorobenzoylamino)-4-methyl-thiophene-2-carboxylic acid methyl ester;

N-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-4-fluorobenzamide;

N-[4-chloro-3-methyl-5-(4-fluoro-phenylaminocarbonyl)-thiophen-2-yl]-4-fluorobenzamide;

3-chloro-5-(4-fluorobenzoylamino)-4-methyl-thiophene-2-carboxylic acid methyl ester;

1-[5-tert-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-3-[4-chloro-3-methyl-5-(1-methylpiperazine-4-carbonyl)-thiophen-2-yl]-urea;

1-[5-tert-butyl-2-(4-fluoro-phenyl)-2H-pyrazol-3-yl]-3-[4-chloro-3-methyl-5-(4-pyridylmethylaminocarbonyl)-thiophen-2-yl]-urea;

N-[4-chloro-3-methyl-5-(4-pyridylmethylaminocarbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

N-[4-chloro-3-methyl-5-(2,3,5-trimethyl-2H-pyrazol-4-ylaminocarbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

N-[4-chloro-3-methyl-5-(4-fluorophenylaminocarbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

N-[4-chloro-3-methyl-5-(1-methylpiperazin-4-ylaminocarbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

N-[4-chloro-3-methyl-5-(2-amino-pyrimidin-5-ylaminocarbonyl)-thiophen-2-yl]-3-fluoro-5-morpholin-4-yl-benzamide;

1-[2-(tetrahydrofuran-2-yl)-thiadiazol-5-yl]-3-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-urea;

1-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-3-[5-cyclohexyl-[1,3,4]thiadiazol-2-yl]-urea;

1-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-3-(5-morpholin-4-yl-[1,3,4]thiadiazol-2-yl)-urea;
1-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-3-[5-(4-methyl-piperazin-1-yl)-[1,3,4]thiadiazol-2-yl]-urea; and
1-[5-tert-Butyl-2-(2,4-difluoro-phenyl)-2H-pyrazol-3-yl]-3-[4-chloro-3-methyl-5-(morpholine-4-carbonyl)-thiophen-2-yl]-urea;
and salts, solvates and N-oxides thereof.

105. A pharmaceutical composition comprising a compound as defined in claim 83 together with a pharmaceutically acceptable carrier.